Comparisons of Job Characteristics

Focus Occupation: Computer Hardware Engineers (17-2061)
Associated Occupation: Network Systems and Data Communications Analysts (15-1081)

Compare Knowledge
Compare Skills
Compare Abilities
Compare Detailed Work Activities
Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 87

Focus Occupation: Computer Hardware Engineers (17-2061)
Associated Occupation: Network Systems and Data Communications Analysts (15-1081)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Computers and Electronics	8.4	21.2	22.7	0	Current knowledge level may be sufficient
Telecommunications	3.9	17.4	11.6	<<	Extensive education and/or training may be required
Customer and Personal Service	11.3	13.4	11.0	<	Expanded education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 69

Focus Occupation: Computer Hardware Engineers (17-2061)
Associated Occupation: Network Systems and Data Communications Analysts (15-1081)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Systems Analysis	6.5	12.8	9.7	<<	Extensive development of skills in this area may be required
Operations Analysis	5.0	11.5	10.5	0	Current skill level may be sufficient
Systems Evaluation	6.4	11.5	9.8	<	A higher skill level may be required
Troubleshooting	4.5	10.3	8.3	<	A higher skill level may be required
Quality Control Analysis	5.9	10.0	8.3	<	A higher skill level may be required
Programming	2.2	9.6	6.1	<<	Extensive development of skills in this area may be required
Technology Design	2.6	9.1	4.5	<<	Extensive development of skills in this area may be required
Equipment Selection	3.3	8.5	4.5	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 92

Focus Occupation: Computer Hardware Engineers (17-2061)
Associated Occupation: Network Systems and Data Communications Analysts (15-1081)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Deductive Reasoning	10.6	12.3	14.5	>	Current ability level is likely sufficient
Information Ordering	9.9	11.6	11.4	0	Current ability level may be sufficient
Fluency of Ideas	7.6	9.7	9.2	0	Current ability level may be sufficient
Selective Attention	8.7	9.7	8.3	<	Some improvement in abilities may be required
Originality	7.6	9.4	9.3	0	Current ability level may be sufficient
Perceptual Speed	7.4	8.8	6.0	<<	Extensive improvement in abilities may be required
Speed of Closure	5.9	8.5	3.5	<<	Extensive improvement in abilities may be required
Memorization	5.6	7.3	6.4	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 78

Focus Occupation: Computer Hardware Engineers (17-2061)
Associated Occupation: Network Systems and Data Communications Analysts (15-1081)

Work Activities	Exclusivity of Activity
Communicate technical information	4
Evaluate computer system user requests or requirements	81
Follow data security procedures	77
Follow data storage procedures	75
Prepare technical reports or related documentation	22
Provide technical computer training	82
Provide technical support to computer users	80
Test computer programs or systems	78
Use computer networking technology	81
Use computers to enter, access or retrieve data	3
Use knowledge of mainframe computers	78
Use project management techniques	47
Use spreadsheet software	18
Use word processing or desktop publishing software	17

Work as a team member	36

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 80

Focus Occupation: Computer Hardware Engineers (17-2061)
Associated Occupation: Network Systems and Data Communications Analysts (15-1081)

Tools and Technologies	Exclusivity
Business function specific software	1
Computers	1
Content authoring and editing software	1
Data management and query software	1
Development software	4
Electrical measuring and testing equipment	7
Electronic and communication measuring and testing instruments	14
Industry specific software	1
Light and wave generating and measuring equipment	4
Network applications software	1
Operating environment software	12

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.